

ABSTRACT

A WDM (Wavelength Division Multiplexing) optical transmitter using a Fabry-Perot laser is disclosed. The WDM optical transmitter includes a light source for outputting incoherent light of a prescribed wavelength bandwidth, a circulator having the first to the
5 third ports, for outputting the incoherent light received at the first port coupled to the light source to the second port, and outputting an optical signal received at the second port to the third port coupled to the external waveguide, a WGR (Waveguide Grating Router) having a multiplexing port (MP) coupled to the second port of the circulator and a plurality of demultiplexing ports (DPs), for performing WD (Wavelength Division) demultiplexing on
10 the incoherent light received at the MP to output WD-demultiplexed signals to the plurality of DPs, and performing WD multiplexing on a plurality of channel signals received at the plurality of DPs to output WD-multiplexed signals to the MP, and a plurality of FB (Fabry-Perot) lasers respectively connected to the DPs of the WGR, each FP laser is comprised of a laser cavity, an antireflection coating layer deposited at one end of the laser cavity facing a
15 corresponding DP, and a high reflection coating layer deposited at the other end of the laser cavity, whereby an optical injection efficiency increases and an influence of reflected light is reduced, resulting in facilitation of a wavelength-locked phenomenon.